

# STATE OF COLORADO

Bill Ritter, Jr., Governor  
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.  
Denver, Colorado 80246-1530  
Phone (303) 692-2000  
TDD Line (303) 691-7700  
Located in Glendale, Colorado

Laboratory Services Division  
8100 Lowry Blvd.  
Denver, Colorado 80230-6928  
(303) 692-3090

<http://www.cdphe.state.co.us>



Colorado Department  
of Public Health  
and Environment

September 2, 2008

**Certified Mail Number: 7007 0220 0001 0156 8908**

PWSID# CO-0138045  
City of Sterling  
421 N 4th St  
PO BOX 4000  
STERLING, CO-80751

**RE: Service of Drinking Water Enforcement Order, Number: DC-080902-1**

Dear Sir or Madam:

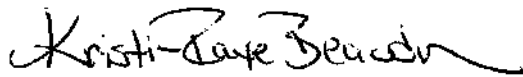
The City of Sterling is hereby issued the enclosed Enforcement Order (the "Order"). This Order is issued by the Colorado Department of Public Health and Environment, Water Quality Control Division (the "Department") pursuant to the authority given to the Department by §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."). The Department bases this Order upon findings that the City of Sterling violated the *Colorado Primary Drinking Water Regulations* (the "Regulations") as described in the enclosed Order.

As a recipient of an enforcement order the City of Sterling may request a formal hearing to contest the Order in accordance with the Regulations, 5 CCR 1003-1, §1.6.7(g). Requests for such a hearing must be filed in writing with the Department within thirty (30) calendar days after service of the Order. Hearings on enforcement orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, §§24-4-101 through 24-4-108, C.R.S.

This action could result in the imposition of administrative or civil penalties. The Department or a State District Court is authorized pursuant to §25-1-114.1, C.R.S. to impose a penalty of up to \$1,000 per violation per day. Please be advised that the Department is continuing its investigation into this matter and the Department may identify supplementary violations that warrant amendments to this Order or the issuance of additional enforcement actions.

Should the City of Sterling desire to informally discuss this matter with the Department or if the City of Sterling has any questions regarding the Order, please don't hesitate to contact Cathy Heald at (303) 692-3254 or by electronic mail at [catherine.heald@state.co.us](mailto:catherine.heald@state.co.us).

Sincerely,



Kristi-Raye Beaudin, Legal Assistant  
Compliance Assurance and Data Management Section  
WATER QUALITY CONTROL DIVISION

Enclosure

cc: Northeast Colorado Health Department  
Compliance Monitor / Drinking Water File

ec: Dennis Pontius, Engineering Section, CDPHE  
Dick Parachini, Watershed Program, CDPHE  
Betsy Beaver, Facility Operators Program, CDPHE  
Shawn McCaffrey, EPA Region VIII  
Patricia Klocker, Assistant Division Director, Consumer Protection Division, CDPHE  
Carolyn Schachterle, OPA  
William Wright ([wright@sterlingcolo.com](mailto:wright@sterlingcolo.com)), System Operator



**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**  
**WATER QUALITY CONTROL DIVISION**

---

**ENFORCEMENT ORDER**

**NUMBER: DC-080902-1**

---

**IN THE MATTER OF: CITY OF STERLING**

**PUBLIC WATER SYSTEM IDENTIFICATION NUMBER: CO-0138045**  
**LOGAN COUNTY, COLORADO**

---

Pursuant to the authority vested in the Colorado Department of Public Health and Environment (the "Department") by §25-1-109 and §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."), which authority has been delegated to the Department's Water Quality Control Division (the "Division"), the Division hereby makes the following findings and issues the following Enforcement Order:

**GENERAL FINDINGS**

1. The City of Sterling ("Sterling") owns and/or operates a drinking water system located in the vicinity of 421 North 4<sup>th</sup> Street, in the City of Sterling, Logan County, Colorado (the "System").
2. Sterling is a person as defined by 5 CCR 1003-1, §1.5.2(92).
3. Sterling is a supplier of water within the meaning of §25-1.5-201(2), C.R.S. and its implementing regulation, 5 CCR 1003-1, §1.5.2(122).
4. The System is a public water system as defined by §25-1.5-201(1), C.R.S. and its implementing regulation, 5 CCR 1003-1, §1.5.2(101).
5. The Public Water System Identification Number ("PWSID"), assigned to the System by the Division is PWSID # CO0138045.
6. Pursuant to 5 CCR 1003-1, §1.2, the System is subject to the *Colorado Primary Drinking Water Regulations* (the "Regulations"), which were adopted pursuant to §25-1.5-203, C.R.S.
7. The Sterling provides piped water for human consumption from the System to at least fifteen (15) service connections used by year-round residents of the area served by the System and/or regularly serves at least twenty-five (25) year-round residents. The System is therefore classified as a "community water system" as defined by 5 CCR 1003-1, §1.5.2(13).
8. The System's source of water is groundwater as defined by 5 CCR 1003-1, §1.5.2(60).

**First Violation**  
**(Exceeding the Maximum Contaminant Level for Uranium)**

9. Pursuant to 5 CCR 1003-1, §2.6 and §6.3 the radionuclide monitoring, compliance requirements and maximum contaminant levels for radionuclides apply to all community public water systems.
10. Pursuant to 5 CCR 1003-1, §2.6, Table 2-7(4), the maximum contaminant level for uranium is 30 micrograms per liter (µg/L).
11. Pursuant to 5 CCR 1003-1, §6.3.5(a)(1), for systems monitoring more than once per year, compliance with the maximum contaminant level is determined by a running annual average at each sampling point. If the average of any sampling point is greater than the maximum contaminant level, then the system is out of compliance with the maximum contaminant level.
12. A review of the radiological monitoring data from calendar year 2004 to present provided to the Department by the System, establishes that the running annual average of samples obtained by the System at quarterly intervals exceeds the maximum contaminant level for uranium as shown below:

Sample Point	Uranium {in micrograms per liter (µg/L)}				
	Result Sample and Date	Result Sample and Date	Result Sample and Date	Result Sample and Date	Running Annual Average
003 (TANK NO 1 - 7.5 MG WEST SITE 6)	41 µg/L 01/12/04	46 µg/L 04/20/04	System Failed to Sample	Seasonal-Did not operate Q4	44 µg/L
	Seasonal - Did not operate Q1	43 µg/L 06/27/07	43 µg/L 07/10/07	45 µg/L 11/14/07	44 µg/L
	43 µg/L 06/27/07	43 µg/L 07/10/07	45 µg/L 11/14/07	Seasonal - Did not operate Q1	44 µg/L
	43 µg/L 07/10/07	45 µg/L 11/14/07	Seasonal - Did not operate Q1	41 µg/L 05/28/07	43 µg/L
022 (PIPELINE WELLS 15 & 30 SITE 3)	41 µg/L 01/12/04	46 µg/L 04/20/04	System Failed to Sample	System Failed to Sample	44 µg/L
	45 µg/L 03/07/07	50 µg/L 05/23/07	46 µg/L 07/10/08 and 39 µg/L 08/15/07	37 µg/L 11/14/07	45 µg/L
	50 µg/L 05/23/07	46 µg/L 07/10/08 and 39 µg/L 08/15/07	37 µg/L 11/14/07	47 µg/L 02/27/08	44 µg/L
	46 µg/L 07/10/08 39 µg/L 08/15/07	37 µg/L 11/14/07	47 µg/L 02/27/08	49 µg/L 04/07/08	44 µg/L

13. Pursuant to 5 CCR 1003-1, §6.3.5(a)(4), if the system does not collect all required samples when compliance is based on a running annual average of quarterly samples, compliance will be based on the running average of the samples collected.
14. Sterling's failure to comply with the maximum contaminant level for uranium constitutes violation(s) of 5 CCR 1003-1, §2.6, Table 2-7(4).

**Second Violation**  
**(Failure to Comply with the Maximum Contaminant Levels for**  
**Total Trihalomethanes)**

15. Pursuant to 5 CCR 1003-1, §2.4, Table 2-5(1), the maximum contaminant level of 0.080 mg/L for total trihalomethanes ("TTHM") are applicable to all community water systems.
16. Pursuant to 5 CCR 1003-1, §7.5.3(b)(1), the System must monitor for TTHM at the following frequency and locations:

<b>Type of System</b>	<b>Minimum Monitoring Frequency</b>	<b>Sample Location in the Distribution System</b>
System using only groundwater not under direct influence of surface water using chemical disinfectant and serving 10,000 or more persons.	One water sample per quarter per treatment plant.	Locations representing maximum residence time.

17. Pursuant to 5 CCR 1003-1, §7.5.4(b)(1)(i) compliance with the maximum contaminant levels for TTHM must be based on a running annual arithmetic average ("RAA"), computed quarterly, of quarterly arithmetic averages of all samples collected by the system as prescribed by 5 CCR 1003-1, §7.5.3(b)(1).
18. Pursuant to 5 CCR 1003-1, §7.5.5(a), Systems required to sample quarterly or more frequently must report to the Department within ten (10) days after the end of each quarter in which samples were collected, notwithstanding the provisions of Article 1, §1.6.4. Systems required to sample less than quarterly must report to the Department within ten (10) days after the end of each monitoring period in which samples were collected.
19. From calendar year 2006 (4<sup>th</sup> Quarter) to present, monitoring data submitted to the Division from the System establishes the following TTHM running annual arithmetic averages for the System in exceedance of the TTHM maximum contaminant level:

<b>TTHM {in milligrams per liter (mg/L)}</b>				
4th Q 2006 0.095 mg/L	1st Q 2007 0.076 mg/L	2nd Q 2007 0.058 mg/L	3rd Q 2007 0.133 mg/L	RAA= 0.091 mg/L
1st Q 2007 0.076 mg/L	2nd Q 2007 0.058 mg/L	3rd Q 2007 0.133 mg/L	4th Q 2007 0.063 mg/L	RAA= 0.083 mg/L

20. Pursuant to 5 CCR 1003-1, §7.5.4(b)(1)(iii), if the running annual arithmetic average of quarterly averages covering any consecutive four-quarter period exceeds the maximum contaminant level, the system is in violation of the maximum contaminant level and must notify the public pursuant to 5 CCR 1003-1, Article 9, §9.2, in addition to reporting to the Department pursuant to 5 CCR 1003-1, §7.5.5.
21. Sterling's failure to comply with the maximum contaminant level for total trihalomethanes, as identified in paragraph 19 above, constitutes violations of 5 CCR 1003-1, §2.4, Table 2-5(1).

### **COMPLIANCE ORDER**

Based upon the foregoing factual and legal determinations and pursuant to 5 CCR 1003-1, §1.6.7, Sterling is hereby ordered to:

22. Immediately comply with the *Colorado Primary Drinking Water Regulations*, 5 CCR 1003-1, Articles 1 through 12.

Further, the Division hereby orders Sterling to comply with the following specific terms and conditions of this Order.

23. In order to ensure long-term compliance with the maximum contaminant levels for uranium and total trihalomethanes, Sterling shall evaluate and upgrade, as needed, the System's water sources and/or treatment process(es) in accordance with the following schedule:
  - a. By September 30, 2008, retain a qualified Professional Engineer (licensed in Colorado and experienced in drinking water systems) to evaluate and recommend radiological and disinfection by-product treatment technologies or alternate water sources to Sterling to ensure compliance with the maximum contaminant levels for uranium and total trihalomethanes. The Department is in the process of evaluating its criteria to determine the direct influence of surface water on ground water sources. The Department has expressed concern to Sterling that some of its groundwater sources may be under the direct influence of surface water. Therefore, the treatment technology recommendations must also contain an evaluation of treatment processes to address any groundwater sources which may be subsequently determined to be under the direct influence of surface water.
  - b. By July 1, 2009, submit for Department review and comment a finalized Preliminary Engineering Report for system improvements to comply with the maximum contaminant level for uranium and total trihalomethanes. This report must also contain an evaluation of treatment processes to address any groundwater sources which may be subsequently determined to be under the direct influence of surface water.
    - i. The Preliminary Engineering Report submittal package must be developed consistent with the *Colorado Drinking Water Preliminary Engineering Report Guidance & Review Checklist Form*. (see [http://www.cdphe.state.co.us/wq/opa/pdf/19\\_CPERGuideChecklistDW.pdf](http://www.cdphe.state.co.us/wq/opa/pdf/19_CPERGuideChecklistDW.pdf))
    - ii. If an alternate water source is proposed, submit for Department review and comment detailed engineering plans and specifications for the source including a description of the alternate water source along with a copy of the laboratory analyses supporting that the alternate water source is suitable.

- iii. The Preliminary Engineering Report must clearly identify the specific treatment technology Sterling will use to ensure compliance with the maximum contaminant levels for uranium and total trihalomethanes.
- iv. The Preliminary Engineering Report must include a process flow schematic of the distribution system from wellheads to points of use, including flow rates, treatment facilities, storage tanks and all service connections supplied by the wells. Alternative treatment locations for the selected treatment process or processes must be evaluated with a recommended location selection. The process flow schematic information and evaluation must be included to ensure all water from the System is treated.
- v. The Preliminary Engineering Report must include a proposal for management of residuals from the treatment technology selected.
- vi. The Preliminary Engineering Report submittal package must include design calculations showing the proposed treatment system is properly sized and chlorine contact times can be met for expected flow rates.

*{Please note that, prior to construction, the Department must give final approval to any modifications to the System's water source or treatment process. The Department will not perform a detailed review and final approval of any proposed modifications until the final design plans and specifications have been received pursuant to paragraph 23(d) below.}*

- c. By November 1, 2009, submit for Department review and comment the final Design Report for the Sterling System improvements to comply with the maximum contaminant levels for uranium and total trihalomethanes. This report must also contain an evaluation of treatment processes to address any groundwater sources which may be subsequently determined to be under the direct influence of surface water.
  - d. By May 1, 2010, submit Final Design Plans and Specifications for the System improvements for Department review and approval in accordance with the *State of Colorado Design Criteria for Potable Water Systems*.
  - e. By December 31, 2011, complete construction/implementation of the Department approved System improvements to ensure long-term compliance with the maximum contaminant levels for uranium and total trihalomethanes.
  - f. By February 15, 2012, submit the Professional Engineer's Certification that the System improvements to comply with the maximum contaminant levels for uranium and total trihalomethanes were constructed/installed as approved by the Department.
24. Within thirty (30) calendar days after receipt of this Enforcement Order, Sterling shall perform uranium monitoring of each well water source used or available to the System. Beginning October 1, 2008, Sterling is authorized to cease performing quarterly entry point uranium compliance monitoring at entry points 003 and 022. In the alternative, Sterling shall perform annual uranium compliance monitoring consisting of collection of a single sample from entry points 003 and 022 one time per calendar year beginning January 1, 2009. The uranium sample(s) must be properly collected and analyzed by a Department certified laboratory in accordance with approved methods. Sterling shall provide the Department with the results of the uranium analyses within ten (10) calendar days of the end of each

monitoring period. All other System monitoring shall be performed in accordance with the Regulations and the Department provided monitoring schedules.

25. Within forty-five (45) calendar days after receipt of this Enforcement Order, Sterling shall complete an evaluation to determine appropriate interim measures to ensure that the System is providing the best possible quality of water available until the System implements improvements to ensure long-term compliance with the maximum contaminant level for uranium. At a minimum, the evaluation shall consider the following:

- a. The uranium concentrations for the existing individual wells, associated well flow rates, and blending opportunities.
- b. Water conservation efforts designed to minimize the use of the most offending wells.

Within sixty (60) calendar days after receipt of this Enforcement Order, Sterling shall submit a written report of the results of this evaluation, along with a well operations plan, to the Division for review and comment. Implementation of the interim measures identified by Sterling shall become a condition of this Enforcement Order unless notified by the Division, in writing, that alternate or additional interim measures are appropriate. If the Division imposes alternate or additional interim measures, they shall also become a condition of this Enforcement Order.

26. Within ninety (90) calendar days after receipt of this Enforcement Order, Sterling shall complete an evaluation to determine appropriate interim measures to ensure that the System is providing the best possible quality of water available until the System implements improvements to ensure long-term compliance with the maximum contaminant level for total trihalomethanes. At a minimum, the evaluation shall include the detailed analysis of storage tank operations with specific consideration of water turnover rate, well control and operations to maintain water level set points as they relate to System demands. Within seventy-five (75) calendar days after receipt of this Enforcement Order, Sterling shall submit a written report of the results of this evaluation to the Division for review and comment. Implementation of the interim measures identified by Sterling shall become a condition of this Enforcement Order unless notified by the Division, in writing, that alternate or additional interim measures are appropriate. If the Division imposes alternate or additional interim measures, they shall also become a condition of this Enforcement Order.
27. Within one hundred and eighty (180) calendar days after receipt of this Enforcement Order, Sterling shall develop and submit for Department review and comment a proposed outreach and communication strategy that outlines the activities Sterling will undertake to inform its residents of the health effects associated with the uranium and total trihalomethanes maximum contaminant levels and to build community support to obtain System improvement approval and funding to achieve compliance with the uranium and total trihalomethanes maximum contaminant levels. Implementation of the outreach and communication strategy developed by Sterling shall become a condition of this Enforcement Order unless notified by the Division, in writing, that alternate or additional activities are appropriate. If the Division imposes alternate or additional interim measures, they shall also become a condition of this Enforcement Order.
28. Within thirty (30) calendar days after receipt of this Enforcement Order and every calendar quarter thereafter, Sterling shall issue a public notice in accordance with 5 CCR 1003-1, Article 9.2 for each ongoing uranium and total trihalomethanes maximum contaminant level violation until Sterling has



effectively addressed and returned to compliance with the uranium and total trihalomethanes maximum contaminant levels outlined in 5 CCR 1003-1, §§ 2.4 and 2.6. Within ten (10) calendar days of completion of each required public notification, Sterling shall submit to the Department, along with the mandatory Public Notification Certification of Delivery, a representative copy of notices distributed, published, posted, and/or made available to the persons served by the system and/or to the media. *(Attached are copies of procedures and forms to assist you with the public notification requirements.)*

29. Sterling shall submit "System Improvement Project - Progress Reports" to the Division every ninety (90) calendar days. The first report shall be submitted to the Division by October 1, 2008. At a minimum, each report shall clearly indicate the status of the system improvement project at the time the report is filed and outline activities to be undertaken within the next ninety (90) calendar days. Each report shall also detail any public notification provided during that period. These reports shall be required until the System has effectively addressed and returned to compliance with the uranium and total trihalomethanes maximum contaminant levels outlined in 5 CCR 1003-1, §§ 2.4 and 2.6.

### **NOTICES AND SUBMITTALS**

For all documents, plans, records, reports and replies required to be submitted by this order, Sterling shall submit an original and one copy (electronic is preferred) to the Division at the following address:

Colorado Department of Public Health and Environment  
Water Quality Control Division / WQCD-WQP-B2  
Compliance Assurance and Data Management Section / Enforcement Team  
Attention: Catherine Heald  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530  
Email: catherine.heald@state.co.us

*(For any facsimile transmittals, please include a cover sheet addressed to Ms. Heald.)*

Pursuant to 5 CCR 1003-1, §1.6.4(e), all reports, notices, summaries, and certifications required to be submitted to the Department by the public water system must bear the original signature of the owner or the owner's authorized representative.

### **NOTICE OF COMPLETION**

Sterling shall submit a Notice of Completion to the Division upon satisfactory completion of all requirements of this Enforcement Order. The Division shall either accept or reject the Notice of Completion in writing. If the Division rejects the Notice of Completion, it shall include in its notice a statement identifying the requirements that the Division considers incomplete or not satisfactorily performed and a schedule for completion. If Sterling wishes to dispute the Division's rejection of its Notice of Completion, it shall, within fifteen (15) calendar days of receipt of the Division's rejection, submit a written statement as to its belief of

full compliance, addressing in detail all concerns the Division raised in the rejection letter to the System's Notice of Completion.

### **PRIOR APPROVAL REQUIRED**

Pursuant to 5 CCR 1003-1, §1.11.2, no person shall commence construction of any new waterworks, or make improvements to or modify the treatment process of an existing waterworks, or initiate use of a new source, until plans and specifications for such construction, improvements, modifications or use have been submitted to, and approved by the Department. A Professional Engineer registered in the State of Colorado shall design all treatment systems serving a community water supply. The Department shall grant such approval when it finds that the proposed facilities are capable of complying, on a continuous basis, with all applicable laws, standards, rules and regulations.

### **POTENTIAL ADMINISTRATIVE/CIVIL AND CRIMINAL PENALTIES**

You are also advised, pursuant to §25-1-114.1, C.R.S., that violators of the Regulations or final Enforcement Orders issued by the Department are subject to civil or administrative penalties of up to one thousand dollars (\$1,000) per violation per day, to be imposed by the Department or a State District Court. Further, pursuant to §25-1-114(4), C.R.S., any person, association, or corporation, or the officers thereof, who violates, disobeys, or disregards any provision of the Regulations or an Enforcement Order is guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than one thousand dollars (\$1,000), or by imprisonment in the county jail for not more than one (1) year, or by both such fine and imprisonment and, in addition to such fine and imprisonment, shall be liable for any expense incurred by health authorities in removing any nuisance, source of filth, or cause of sickness. By virtue of issuing this Enforcement Order, the Department has not waived its right to bring an action for administrative, civil or criminal penalties and may bring such action in the future.

### **REQUEST FOR HEARING OR APPEAL**

You are further advised, pursuant to 5 CCR 1003-1, §1.6.7(g), that a recipient of an Enforcement Order may request a hearing contesting such order. Requests for such a hearing shall be filed in writing with the Department within thirty (30) calendar days after service of the order. Such requests shall state the grounds upon which the order is contested and state the amount of time the recipient estimates will be required for the hearing. Hearings on Enforcement Orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, Article 4 of Title 24, C.R.S.

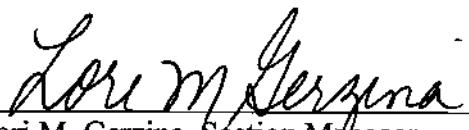
### **ADDITIONAL ACTION**

You are further advised that under §25-1-114.1(1), C.R.S., the Department may institute a civil action against any person who violates a final Enforcement Order of the Department issued for violation of any minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S.

Additionally, the Department may request the Attorney General to seek a temporary restraining order or permanent injunction to prevent or abate any violation of a minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S. Further information concerning the aforementioned action is contained in §25-1-114.1(3), C.R.S.

Issued at Denver, Colorado, this 2<sup>nd</sup> day of September, 2008.

**FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

  
Lori M. Gerzina, Section Manager  
Compliance Assurance and Data Management Section  
Water Quality Control Division